030-051-6353-A

ROAD RECONNAISSANCE
Part II

TEC LESSON 030-051-6353-A

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FORT BELVOIR, VIRGINIA 22060

STUDENT/SUPERVISOR INSTRUCTIONS, PRETEST/POSTTEST, AND ANSWER KEY ARE CONTAINED IN THIS BOOK.

REVISED
JUNE 1985

READ THE STUDENT/SUPERVISOR INSTRUCTIONS CAREFULLY. BE SURE YOU UNDERSTAND THEM COMPLETELY BEFORE BEGINNING THE LESSON. PLEASE DO NOT WRITE IN THIS BOOK.

The words "he," "his," and "men," when used in this publication, represent both the masculine and feminine genders, unless otherwise specifically stated.

STUDENT/SUPERVISOR INSTRUCTIONS

TYPE OF LESSON

- Road Reconnaissance

AUDIENCE

- MOS 12B—Combat Engineer
- Skill Levels One and Two

TRAINING OBJECTIVES

Soldiers completing this lesson will be able to:

- Prepare the Heading of DA Form 1248.
- Prepare Section I of DA Form 1248.
- Prepare Section II of DA Form 1248.
- Prepare Section III of DA Form 1248.

MATERIAL/EQUIPMENT/PERSONNEL REQUIRED

- Pencil and Paper
- DA Form 1248

TIME REQUIRED

- Individual: 60 minutes
- Group: 90 minutes

REFERENCES

- FM 5-34
- FM 5-36

READEX FICHE best copy available

STUDENT/SUPERVISOR INSTRUCTIONS

STUDENT INSTRUCTIONS

- Prerequisites: TEC Lesson 030-051-6352-A
- Take the Pretest/Posttest. If you pass, you do not have to take the lesson.
- Make sure you have the material, equipment, and personnel required to complete the lesson.
- Take the lesson.
- When you complete this lesson, take the Pretest/Posttest again. If you do not pass, take the lesson again.

SUPERVISOR INSTRUCTIONS

- Make sure students have completed the prerequisites listed in the Student Instructions.
- Administer the Pretest/Posttest to determine need for the lesson. If only one soldier is being tested, the test may be taken directly from the book, with response made on a separate sheet of paper. If more than one soldier is being tested, reproduce the test for direct use. To pass the test, a soldier must answer 100% of the items correctly.
- Make sure students have the material, equipment, and personnel required to complete the lesson.
- Administer the lesson to students who do not pass the Pretest/Posttest.
- Administer the Pretest/Posttest to students who complete the lesson. Those who do not pass must take the lesson again.

TEC LESSON 030-051-6353-A
Road Reconnaissance
Part II

This test consists of 2 parts that cover every training objective of the lesson. These parts have a total value of 100 points. When you have completed the test, check your answers against the Pretest/Posttest Answer Key. If you do not complete both parts correctly, you must take the lesson—or take it again if you have already taken it. If you are taking the test directly from the instruction book, write your answers on a separate sheet of paper.

Use completed SECTION IV, Mileage Chart (shown on page 4), and the following information to prepare the Heading and SECTIONS I, II, III of DA Form 1248 to hand in to CO. 20th Engr. Bn, ATTN: S-2 no later than 110900 July 1978. Time recon conducted: 110400 July 1978. Time Report Signed 110900 July 1978. You may use FM 5-34 at any time.

MAPS: Lawton, Oklahoma
Scale: 1:50,000
Sheet number: 5567 - III
AMS V 733

ROAD MARKING: Rt. 507

WEATHER CONDITIONS:
Hot and humid—Approx. 87°
Last rainfall 5 July—Approx. 1 inch

OBSTRUCTIONS:

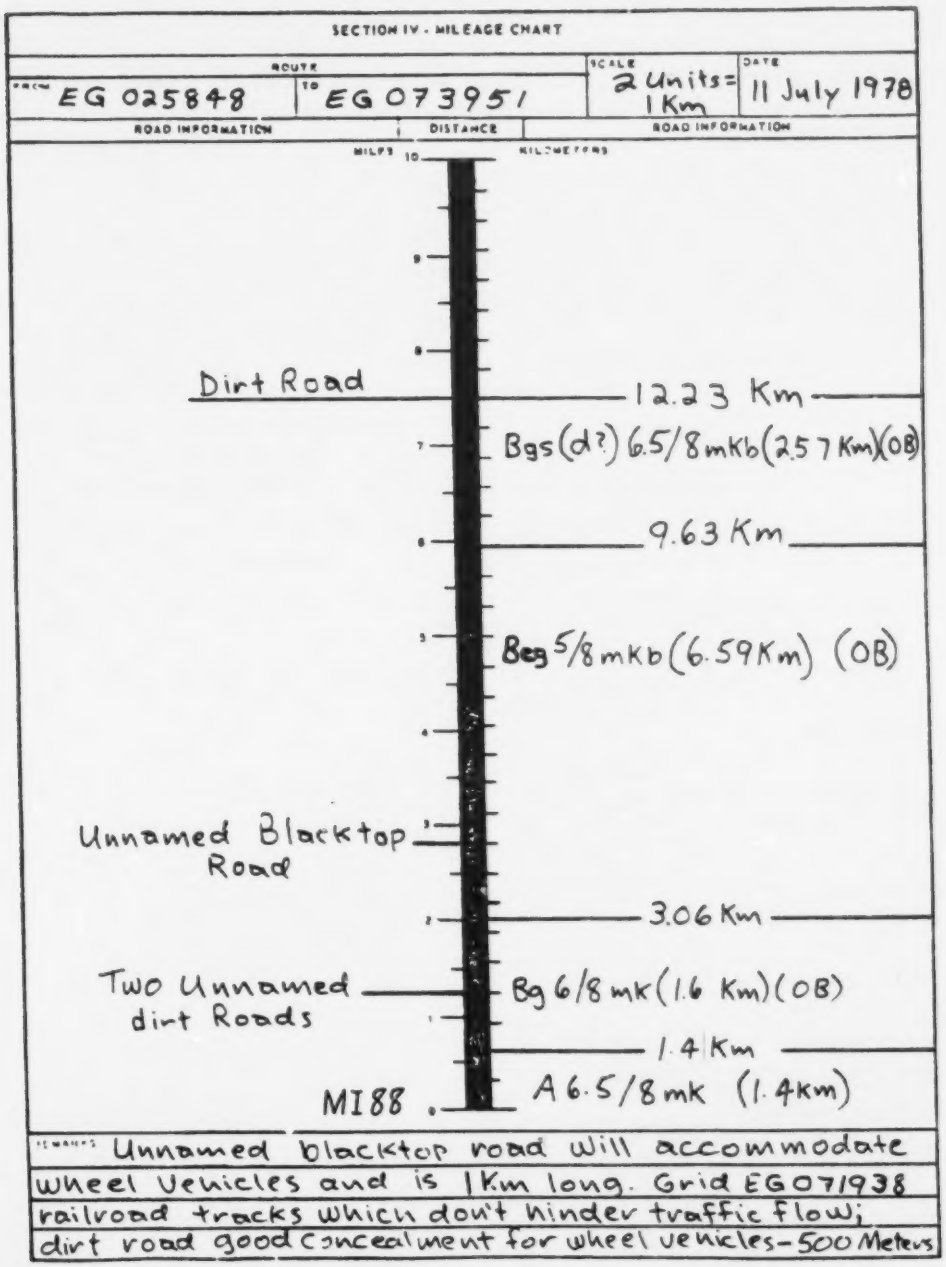
A. Uphill slope—9% for 250 meters
(GRID EG 034795)

B. Sharp Curve—17 meters radius
(GRID EG 047692)

C. Downhill Slope—8% for 225 meters
(GRID EG 053174)

D. Uphill Slope—11% for 400 meters
(GRID EG 068698)

The following is the completed SECTION IV, MILEAGE CHART from Road Reconnaissance, Part I. Use this along with the additional information to prepare the HEADING and SECTIONS I, II, III of DA Form 1248.


SECTION IV - MILEAGE CHART
ROUTE
FROM EG 025848
TO EG 073951
SCALE 2 Units = 1 Km
DATE 11 July 1978
ROAD INFORMATION
DISTANCE
ROAD INFORMATION
MILES
KILOMETERS
Dirt Road
12.23 Km
Bgs(d?) 6.5/8 mKb (2.57 Km) (OB)
9.63 Km
Beg 5/8 mKb (6.59 Km) (OB)
Unnamed Blacktop Road
3.06 Km
Two Unnamed dirt Roads
Bg 6/8 mK (1.6 Km) (OB)
1.4 Km
MI88
A 6.5/8 mK (1.4 Km)
REMARKS Unnamed blacktop road will accommodate wheel vehicles and is 1 Km long. Grid EG071938 railroad tracks which don't hinder traffic flow; dirt road good concealment for wheel vehicles - 500 Meters

INTENTIONALLY
BLANK

INTRODUCTION

As NCOIC of a road reconnaissance, you are responsible for preparing DA Form 1248. Your supervisor will use this form to determine whether further investigation of the road is necessary.

In the last lesson you learned how to record the Road Classification Formula and to prepare SECTION IV, Mileage Chart, of DA Form 1248.

In this lesson you will learn how to transfer the data and measurements from SECTION IV and your notes onto the front sections of DA Form 1248. You will learn how to prepare these sections:

HEADING

SECTION I—GENERAL ROAD INFORMATION

SECTION II—DETAILED ROAD INFORMATION

SECTION III—OBSTRUCTIONS

Heading

The HEADING is always the first section you prepare.

In the HEADING you record general information about the road reconnaissance. You get this information from SECTION IV of DA Form 1248.

Turn the page to learn what to write in each block of the HEADING. . .

Heading (Cont.):

ROAD RECONNAISSANCE REPORT For use of this form, see FM 5-36; proponent agency is TRADOC.				DATE 1
TO: *(Headquarters ordering reconnaissance)* 2			FROM: *(Name, grade and unit of officer or NCO making reconnaissance)* 3	
1. MAPS	a. COUNTRY 4	b. SCALE 5	c. SHEET NUMBER OF MAPS 6	2. DATE/TIME GROUP *(Of signature)* 7
SECTION I - GENERAL ROAD INFORMATION				
3. ROAD GRID REFERENCE FROM / TO		4. ROAD MARKING *(Civilian or Military number of road)*		5. LENGTH OF ROAD *(Miles or kilometers, specify)*
6. WIDTH OF ROADWAY *(Feet or meters, specify)*		8. WEATHER DURING RECONNAISSANCE *(Include last rainfall, if known)*		
7. RECONNAISSANCE DATE / TIME				

Study these directions for preparing the HEADING. Then do the practice exercise that follows:

1. In the DATE block, write the date you ***will submit*** the report.

2. Write the person or agency who will receive the report. (You receive this information in the Mission Directive.)

3. Write your name and unit.

4. Write the name of the country and map title where you reconnoitered the road.

5. Write the scale of the map you used during the reconnaissance.

6. Write the map series and the sheet number(s).

7. Record the date/time you ***complete*** and ***forward*** this report.

PRACTICE EXERCISE 1:

Take out a blank DA Form 1248. On the following page is the completed SECTION IV, MILEAGE CHART you prepared in TEC LESSON #030-051-6352-A. Given the following additional information, prepare the HEADING of your DA Form 1248.

Use your own name, unit, and supervisor for this section. **Keep this DA Form 1248 for all other practice exercises in this lesson.**

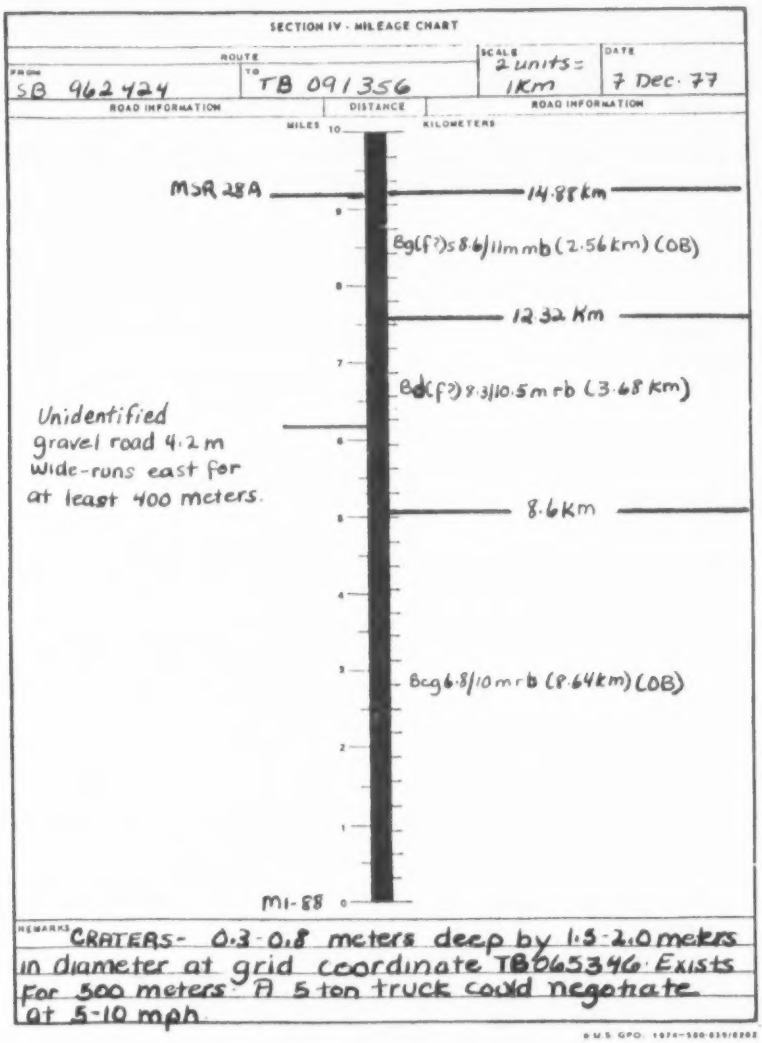
ADDITIONAL INFORMATION:

1. Maps: Innsbruck, Austria
   Scale: 1:50,000
   Series and sheet numbers: 5334 IV, 5134 III, AMS

2. Date/Time report submitted:
   071045 December 1977

Check your answers on page 11.

PRACTICE EXERCISE (Cont.):


SECTION IV - MILEAGE CHART
ROUTE
FROM SB 962424
TO TB 091356
SCALE 2 units = 1Km
DATE 7 Dec 77
ROAD INFORMATION
DISTANCE
ROAD INFORMATION
MILES
KILOMETERS
MSR 28A
14.88km
Bg(f?)s 8.6/11m mb (2.56km) (OB)
12.32 Km
Bdk(f?) 8.3/10.5m rb (3.68 km)
Unidentified gravel road 4.2m wide-runs east for at least 400 meters.
8.6Km
Bcg 6.8/10m rb (8.64km) (OB)
MI-88
REMARKS
CRATERS- 0.3-0.8 meters deep by 1.5-2.0 meters in diameter at grid coordinate TB065346. Exists for 500 meters. A 5 ton truck could negotiate at 5-10 mph.

CHECK YOUR ANSWERS:

ROAD RECONNAISSANCE REPORT

For use of this form, see FM 5-36; proponent agency is TRADOC

DATE: 7 Dec. 77

TO: (Headquarters ordering reconnaissance): HQs Ordering Recon

FROM: (Name, grade and unit of officer or NCO making reconnaissance): Your name and unit

1. MAPS — a. COUNTRY: Innsbruck, Austria — b. SCALE: 1:50000 — c. SHEET NUMBER OF MAPS: 5334 IV, 5134 III AMS — d. DATE/TIME GROUP (Of signature): 071045 Dec. 77

SECTION I - GENERAL ROAD INFORMATION

2. ROAD GRID REFERENCE — FROM — TO

3. ROAD MARKING (Civilian or Military number of road)

4. LENGTH OF ROAD (Miles or kilometers, specify)

5. WIDTH OF ROADWAY (Feet or meters, specify)

6. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known)

7. RECONNAISSANCE — DATE — TIME

SECTION II - DETAILED ROAD INFORMATION (When circumstances permit more detailed information will be shown in an overlay or on the mileage chart on the reverse side of this form. Standard symbols will be used.)

9. ALINEMENT (Check one ONLY)
- (1) FLAT GRADIENTS AND EASY CURVES
- (2) STEEP GRADIENTS (Steeper than 1 in 100)
- (3) SHARP CURVES (Radius less than 100 ft (30m))
- (4) STEEP GRADIENTS AND SHARP CURVES

10. DRAINAGE (Check one ONLY)
- (1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION
- (2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS, ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION

11. FOUNDATION (Check one ONLY)
- (1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY
- (2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

12. SURFACE DESCRIPTION (Complete items 12a and b)

a. THE SURFACE IS (Check one ONLY)
- (1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED
- (2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE (Check one ONLY)
- (1) CONCRETE
- (2) BITUMINOUS (Specify type where known):
- (3) BRICK (Pave)
- (4) STONE (Pave)
- (5) CRUSHED ROCK OR CORAL
- (6) WATERBOUND MACADAM
- (7) GRAVEL
- (8) LIGHTLY METALLED
- (9) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
- (10) OTHER (Describe).

SECTION III - OBSTRUCTIONS (List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. If information of any factor cannot be ascertained, insert "NOT KNOWN")
(a) Overhead obstructions, less than 14 feet or 4.25 meters, such as tunnels, bridges, overhead wires and overhanging buildings.
(b) Reductions in road widths which limit the traffic capacity, such as culverts, narrow bridges, archways, and buildings.
(c) Excessive gradients (Above 7 in 100)
(d) Curves less than 100 feet (34 meters) in radius)
(e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d

DA FORM 1 JUL 68 1248 — PREVIOUS EDITION OF THIS FORM IS OBSOLETE.

When you're ready, proceed.

Section I—General Road Information

In SECTION I you record general information about the road—such as the road's limiting characteristics.

To prepare SECTION I, you need information from SECTION IV and any personal notes or observations you make along the way.

Let's proceed. . .

Section I (Cont.):

SECTION I - GENERAL ROAD INFORMATION			
3. ROAD GRID REFERENCE		4. ROAD MARKING (Civilian or Military number of road)	5. LENGTH OF ROAD (Miles or kilometers, specify)
FROM	TO		
8		9	10
6. WIDTH OF ROADWAY (Feet or meters, specify)		8. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known)	
11			
7. RECONNAISSANCE			
DATE	TIME		

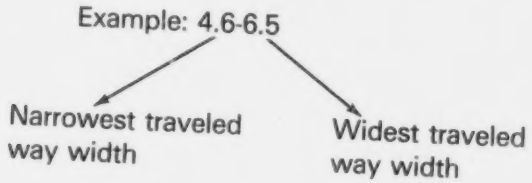
Study these directions for preparing SECTION I. Then do the practice exercise that follows:

8. Record the STARTING and ENDING GRID COORDINATES. Take this information from the ROUTE FROM and TO blocks of SECTION IV.

9. Record military or civilian road markings you saw along the road. This refers to the route you are performing recon on. It does not include intersections. On the job you should note these on scratch paper.

10. Record the entire length of the road. Take this information directly from SECTION IV. Remember to express the distance in kilometers (miles × 1.6093).

11. Record the width of the roadway in meters. You always record the narrowest and widest traveled way width, separated by a dash. You obtain this data from the Road Classification formulas in Section IV.



Section I (Cont.):

SECTION I - GENERAL ROAD INFORMATION			
3. ROAD GRID REFERENCE		4. ROAD MARKING *(Civilian or Military number of road)*	5. LENGTH OF ROAD *(Miles or kilometers, specify)*
FROM	TO		
6. WIDTH OF ROADWAY *(Feet or meters, specify)*		8. WEATHER DURING RECONNAISSANCE *(Include last rainfall, if known)*	
7. RECONNAISSANCE		13	
DATE	TIME		
12			

12. Record the time and the date you actually ***performed*** the reconnaissance.

13. Record the weather conditions during the reconnaissance. Indicate the amount and date of the last rainfall or snowfall if you have this information.

Turn the page for the practice exercise.

PRACTICE EXERCISE 2:

Take out the DA Form 1248 you began in the last practice exercise. Given the completed SECTION IV, MILEAGE CHART you prepared in the last lesson, and the following information, prepare SECTION I—GENERAL INFORMATION on the DA Form 1248.

ADDITIONAL INFORMATION:

Upon your return, your sergeant informs you that it rained one (1) inch on 5 December and snowed three (3) inches on 6 December. It remained cold and cloudy throughout the reconnaissance, and the temperature was about 30°.

TIME OF RECON: 7 0700 DEC 77
Route Marking: Rt. 119 (Civilian)

REMEMBER:

Keep this DA Form 1248 for the next practice exercise. Check your work on page 17.

PRACTICE EXERCISE (Cont.):

SECTION IV - MILEAGE CHART

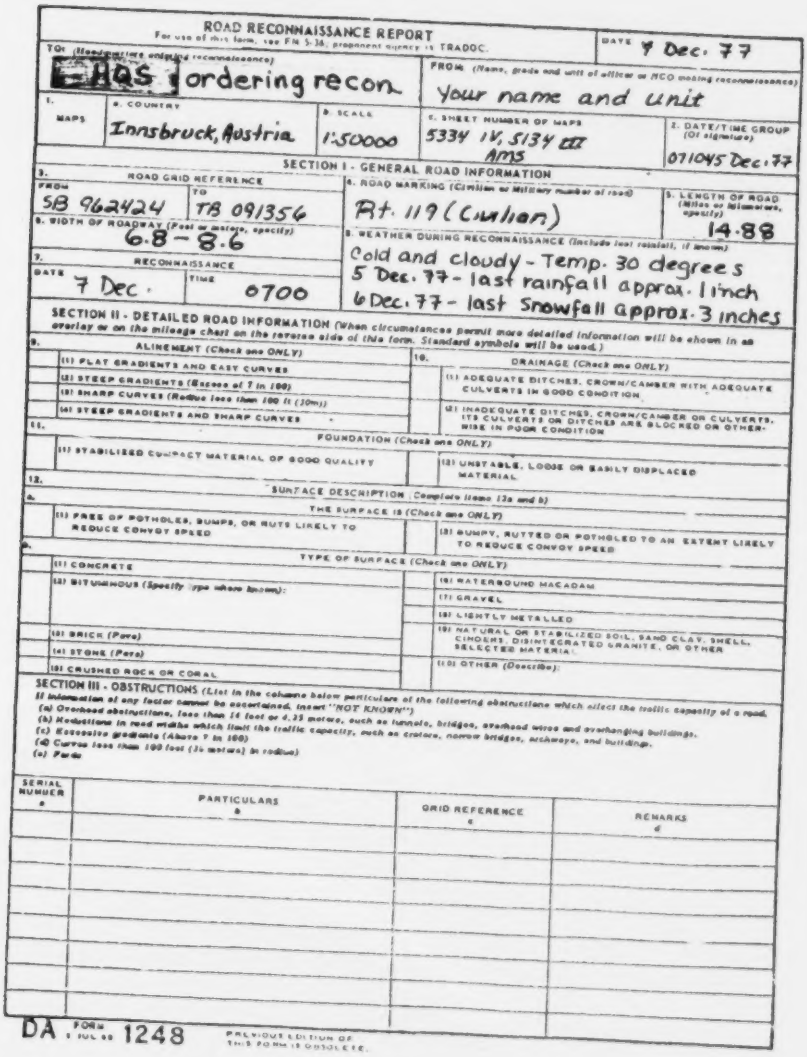
ROUTE FROM	TO	SCALE	DATE
SB 962424	TB 091356	2 units = 1Km	7 Dec 77

ROAD INFORMATION	DISTANCE	ROAD INFORMATION
MSR 28A	MILES / KILOMETERS	14.88Km
		Bg(f?)s 8.6/11 mmb (2.56km)(OB)
		12.32 Km
		Bd(f?)8.3/10.5mrb (3.68 km)
Unidentified gravel road 42 m wide - runs east for at least 400 meters.		8.6 Km
		Bcg6.8/10mrb (8.64 km) (OB)
	mi-88	

REMARKS: CRATERS 0.3-0.8 meters deep by 1.5-2.0 meters in diameter at grid coordinate TB 065346. Exists for 500 meters. A 5-ton truck could negotiate at 5-10 mph.

U.S. GPO: 1974-580-039/0202

CHECK YOUR ANSWERS:



ROAD RECONNAISSANCE REPORT
For use of this form, see FM 5-36; proponent agency is TRADOC.

DATE: 7 Dec. 77

TO: (Headquarters ordering reconnaissance): HQS ordering recon.

FROM: (Name, grade and unit of officer or NCO making reconnaissance): Your name and unit

1. MAPS
a. COUNTRY: Innsbruck, Austria
b. SCALE: 1:50000
c. SHEET NUMBER OF MAPS: 5334 IV, 5134 III AMS
d. DATE/TIME GROUP (Of signature): 071045 Dec. 77

SECTION I - GENERAL ROAD INFORMATION

2. ROAD GRID REFERENCE
FROM: SB 962424
TO: TB 091356

3. ROAD MARKING (Civilian or Military number of road): Rt. 119 (Civilian)

4. LENGTH OF ROAD (Miles or kilometers, specify): 14.88

5. WIDTH OF ROADWAY (Feet or meters, specify): 6.8 - 8.6

6. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known): Cold and cloudy - Temp. 30 degrees
5 Dec. 77 - last rainfall approx. 1 inch
6 Dec. 77 - last snowfall approx. 3 inches

7. RECONNAISSANCE
DATE: 7 Dec.
TIME: 0700

SECTION II - DETAILED ROAD INFORMATION (When circumstances permit more detailed information will be shown in an overlay or on the mileage chart on the reverse side of this form. Standard symbols will be used.)

9. ALINEMENT (Check one ONLY)
(1) FLAT GRADIENTS AND EASY CURVES
(2) STEEP GRADIENTS (Excess of 7 in 100)
(3) SHARP CURVES (Radius less than 100 ft (30m))
(4) STEEP GRADIENTS AND SHARP CURVES

10. DRAINAGE (Check one ONLY)
(1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION
(2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS. ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION

11. FOUNDATION (Check one ONLY)
(1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY
(2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

12. SURFACE DESCRIPTION (Complete items 12a and b)

a. THE SURFACE IS (Check one ONLY)
(1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED
(2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE (Check one ONLY)
(1) CONCRETE
(2) BITUMINOUS (Specify type where known):
(3) BRICK (Pave)
(4) STONE (Pave)
(5) CRUSHED ROCK OR CORAL
(6) WATERBOUND MACADAM
(7) GRAVEL
(8) LIGHTLY METALLED
(9) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
(10) OTHER (Describe):

SECTION III - OBSTRUCTIONS (List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. If information of any factor cannot be ascertained, insert "NOT KNOWN")
(a) Overhead obstructions, less than 14 feet or 4.25 metres, such as tunnels, bridges, overhead wires and overhanging buildings.
(b) Headstone in road widths which limit the traffic capacity, such as culverts, narrow bridges, archways, and buildings.
(c) Excessive gradients (Above 7 in 100)
(d) Curves less than 100 feet (34 metres) in radius
(e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d

DA FORM 1 JUL 58 1248 PREVIOUS EDITION OF THIS FORM IS OBSOLETE.

When you're ready, proceed.

Section II—Detailed Road Information

Each box in Section II is a description of the elements of the Road Reconnaissance Formula in SECTION IV, MILEAGE CHART.

A completed SECTION II gives your supervisor an overview of the road.

Turn the page and take a closer look at this section.

Section II (Cont.):

SECTION II - DETAILED ROAD INFORMATION *(When circumstances permit more detailed information will be shown in an overlay or on the mileage chart on the reverse side of this form. Standard symbols will be used.)*

9. ALINEMENT *(Check one ONLY)*

- (1) FLAT GRADIENTS AND EASY CURVES
- (2) STEEP GRADIENTS *(Excess of 7 in 100)*
- (3) SHARP CURVES *(Radius less than 100 ft (30m))*
- (4) STEEP GRADIENTS AND SHARP CURVES

14

10. DRAINAGE *(Check one ONLY)*

- (1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION.
- (2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS, ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION

11. FOUNDATION *(Check one ONLY)*

- (1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY
- (2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

12. SURFACE DESCRIPTION *(Complete items 12a and b)*

a. THE SURFACE IS *(Check one ONLY)*

- (1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED
- (2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE *(Check one ONLY)*

- (1) CONCRETE
- (2) BITUMINOUS *(Specify type where known)*:
- (3) BRICK *(Pave)*
- (4) STONE *(Pave)*
- (5) CRUSHED ROCK OR CORAL
- (6) WATERBOUND MACADAM
- (7) GRAVEL
- (8) LIGHTLY METALLED
- (9) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
- (10) OTHER *(Describe)*:

15

Study these directions for preparing SECTION II. Then do the practice exercise that follows:

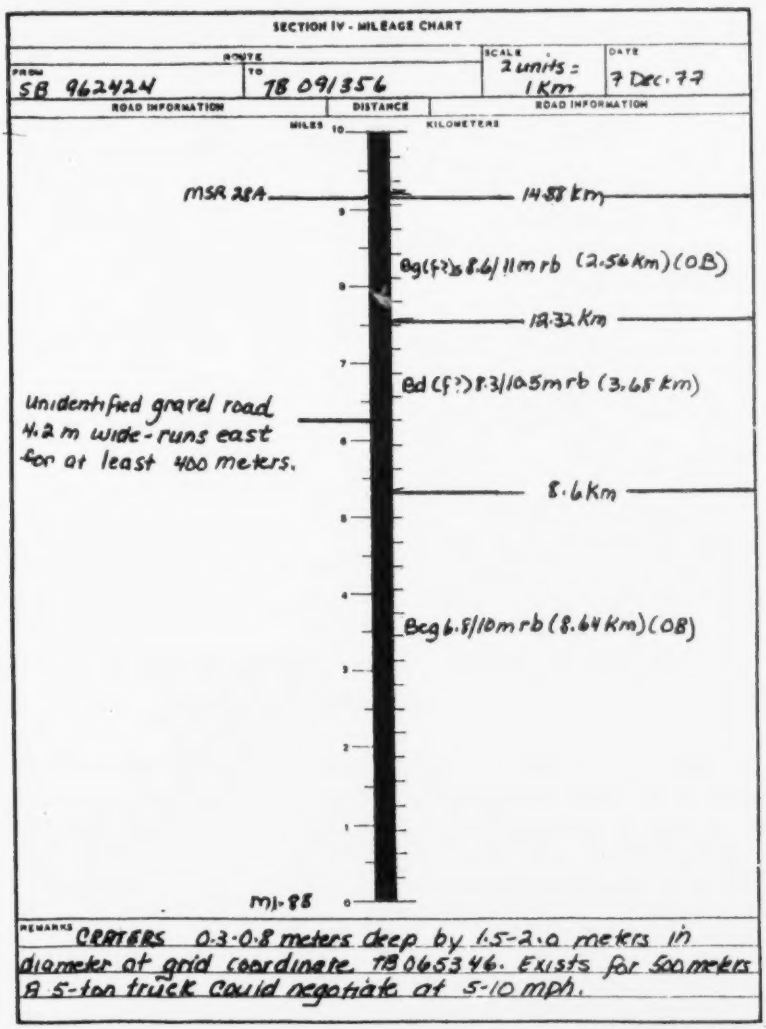
14. Place a check mark in the boxes which describe the worst Limiting Characteristics of your Road Reconnaissance Formula.

15. Place a check mark in the boxes which describe the Type of Surface material in your Road Reconnaissance Formula. If there is more than one type of surface listed in Section IV, check one type here and write "See Section IV."

The practice exercise is next.

PRACTICE EXERCISE 3:

Take out the DA Form 1248 you have been working on in the other practice exercises. Use this completed Section IV, Mileage Chart to prepare SECTION II of DA Form 1248.


SECTION IV - MILEAGE CHART
ROUTE
FROM SB 962424
TO TB 091356
SCALE 2 units = 1 Km
DATE 7 Dec. 77
ROAD INFORMATION
DISTANCE
ROAD INFORMATION
MILES
KILOMETERS
MSR 28A
14.88 km
Bg(F?) 8.6/11m rb (2.56 km)(OB)
12.32 Km
Bd (F?) 8.3/10.5m rb (3.68 km)
Unidentified gravel road 4.2 m wide - runs east for at least 400 meters.
8.6 Km
Bcg 6.8/10m rb (8.64 Km)(OB)
MJ-88
REMARKS CRATERS 0.3-0.8 meters deep by 1.5-2.0 meters in diameter at grid coordinate TB 065346. Exists for 500 meters A 5-ton truck could negotiate at 5-10 mph.

Check your answers on the next page.

INTENTIONALLY
BLANK

CHECK YOUR ANSWER:

ROAD RECONNAISSANCE REPORT
For use of this form, see FM 5-36; proponent agency is TRADOC

DATE: 7 Dec. 77

TO: (Headquarters ordering reconnaissance): Supervisor's name and unit

FROM: (Name, grade and unit of officer or NCO making reconnaissance): Your name and unit

1. MAPS	a. COUNTRY	b. SCALE	c. SHEET NUMBER OF MAPS	d. DATE/TIME GROUP (Of signature)
	Innsbruck, Austria	1:50000	5334 IV, 5134 III AMS	071045 Dec. 77

SECTION I - GENERAL ROAD INFORMATION

2. ROAD GRID REFERENCE FROM	TO	4. ROAD MARKING (Civilian or Military number of road)	5. LENGTH OF ROAD (Miles or kilometers, specify)
SB 962424	TB 091356	Rt. R119 (Civilian)	10 Km

6. WIDTH OF ROADWAY (Feet or meters, specify)	8. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known)
4.3 - 6.5 meters	Cold and cloudy - Temp. 30°
	5 Dec. 77 last rainfall - approx. 1 inch
	6 Dec. 77 last Snowfall - approx. 3 inches

7. RECONNAISSANCE DATE	TIME
7 Dec.	1045

SECTION II - DETAILED ROAD INFORMATION (When circumstances permit more detailed information will be shown in an overlay or on the mileage chart on the reverse side of this form. Standard symbols will be used.)

9. ALINEMENT (Check one ONLY)		10. DRAINAGE (Check one ONLY)	
	(1) FLAT GRADIENTS AND EASY CURVES		(1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION
	(2) STEEP GRADIENTS (Excess of 7 in 100)		
	(3) SHARP CURVES (Radius less than 100 ft (30m))		(2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS; ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION
X	(4) STEEP GRADIENTS AND SHARP CURVES	X	

11. FOUNDATION (Check one ONLY)			
	(1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY	X	(2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

12. SURFACE DESCRIPTION (Complete items 12a and b)

a. THE SURFACE IS (Check one ONLY)

	(1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED	X	(2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE (Check one ONLY)

	(1) CONCRETE		(6) WATERBOUND MACADAM
	(2) BITUMINOUS (Specify type where known):		(7) GRAVEL
X	Bound Macadam		(8) LIGHTLY METALLED
			(9) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
	(3) BRICK (Pave)		
	(4) STONE (Pave)		(10) OTHER (Describe)
	(5) CRUSHED ROCK OR CORAL		

SECTION III - OBSTRUCTIONS (List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. If information of any factor cannot be ascertained, insert "NOT KNOWN")
(a) Overhead obstructions, less than 14 feet or 4.25 metres, such as tunnels, bridges, overhead wires and overhanging buildings.
(b) Reductions in road widths which limit the traffic capacity, such as culverts, narrow bridges, archways, and buildings.
(c) Excessive gradients (Above 7 in 100)
(d) Curves less than 100 feet (30 metres) in radius.
(e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d

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When you're ready, proceed.

Section III—Obstructions:

In this section you list obstructions in the order you encounter them during the reconnaissance. Turn the page to learn how to record these obstructions.

Section III—Obstructions (Cont.):

SECTION III - OBSTRUCTIONS *(List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. If information of any factor cannot be ascertained, insert "NOT KNOWN")*
(a) Overhead obstructions, less than 14 feet or 4.33 meters, such as tunnels, bridges, overhead wires and overhanging buildings.
(b) Reductions in road widths which limit the traffic capacity, such as craters, narrow bridges, archways, and buildings.
(c) Excessive gradients (Above 7 in 100)
(d) Curves less than 100 feet (34 meters) in radius)
(e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d
1	UPHILL SLOPE	EG 098776	10% SLOPE FOR 175 METERS
	16	17	18

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Study the directions for preparing SECTION III—OBSTRUCTIONS. Then do the practice exercise that follows.

16. Number and list the obstructions in the order you encounter them on the road. In the above example the serial number is 1.

17. Record grid coordinates of obstructions. In the above example the grid coordinates are EG 098776.

18. Record the type, length, percent of slope, curve radius, and other limiting criteria. Get this information from the notes you take during the reconnaissance. On the job, you may attach additional sheets to the DA Form 1248 if necessary. In the above example the uphill slope has a 10% slope for 175 meters.

Turn the page and complete SECTION III.

PRACTICE EXERCISE 4:

Take out your DA Form 1248. Given the completed SECTION IV, MILEAGE CHART on the following page, and the following additional information taken from notes, prepare SECTION III.

ADDITIONAL INFORMATION CONCERNING OBSTRUCTIONS:

1. Uphill steep grade of 7% for 500 meters

   Grid: SB 968419

   Odometer: 17936.8 miles

2. Sharp curve—28m radius

   Grid: SB 983367

   Odometer: 17940.1

3. Steep downhill grade—8% for 150m; 5% for 600m

   Grid: SB 983367

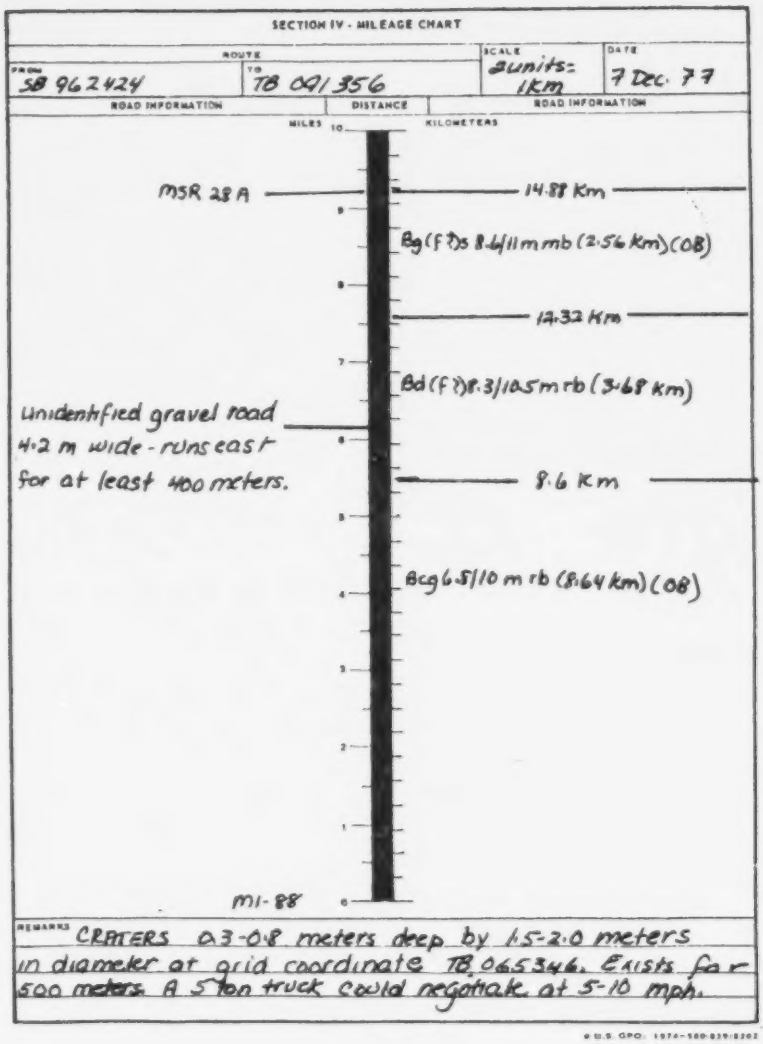
   Odometer: 17940.1

4. Steep uphill grade—9% for 500m

   Grid: SB 994836

   Odometer: 17942.1

PRACTICE EXERCISE (Cont.):



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CHECK YOUR ANSWERS:

ROAD RECONNAISSANCE REPORT (For use of this form, see FM 5-36; proponent agency is TRADOC.) — DATE: 7 Dec. 77

TO: (Headquarters ordering reconnaissance): HQS ordering recon

FROM: (Name, grade and unit of officer or NCO making reconnaissance): Your name and Unit

1. MAPS	a. COUNTRY	b. SCALE	c. SHEET NUMBER OF MAPS	2. DATE/TIME GROUP (Of origination)
	Innsbruck, Austria	1:50000	5334 IV, 5134 III AMS	071045 Dec. 77

SECTION I - GENERAL ROAD INFORMATION

3. ROAD GRID REFERENCE		4. ROAD MARKING (Civilian or military number of road)	5. LENGTH OF ROAD (Miles or kilometers, specify)
FROM: SB 962424	TO: TB 091356	Rt. R119 (Civilian)	14.88 KM

6. WIDTH OF ROADWAY (Feet or meters, specify): 6.8 - 8.6

8. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known): Cold and cloudy - Temp. 30°. 5 Dec. 77 last rainfall - approx. 1 inch 6 Dec. 77 last snowfall - approx. 3 inches

7. RECONNAISSANCE — DATE: 7 Dec. — TIME: 0700

SECTION II - DETAILED ROAD INFORMATION (When circumstances permit more detailed information will be shown in an overlay or on the mileage chart on the reverse side of this form. Standard symbols will be used.)

9. ALINEMENT (Check one ONLY)

	(1) FLAT GRADIENTS AND EASY CURVES
	(2) STEEP GRADIENTS (Excess of 7 in 100)
	(3) SHARP CURVES (Radius less than 100 ft (30m))
X	(4) STEEP GRADIENTS AND SHARP CURVES

10. DRAINAGE (Check one ONLY)

	(1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION
X	(2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS, ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION

11. FOUNDATION (Check one ONLY)

	(1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY
X	(2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

12. SURFACE DESCRIPTION (Complete items 12a and b)

a. THE SURFACE IS (Check one ONLY)

	(1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED
X	(2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE (Check one ONLY)

	(1) CONCRETE		(6) WATERBOUND MACADAM
X	(2) BITUMINOUS (Specify type where known): Bound Macadam		(7) GRAVEL
			(8) LIGHTLY METALLED
	(3) BRICK (Paro)		(9) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
	(4) STONE (Paro)		(10) OTHER (Describe):
	(5) CRUSHED ROCK OR CORAL		

SECTION III - OBSTRUCTIONS (List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. If information of any factor cannot be ascertained, insert "NOT KNOWN")
(a) Overhead obstructions, less than 14 feet or 4.25 metres, such as tunnels, bridges, overhead wires and overhanging buildings.
(b) Reductions in road widths which limit the traffic capacity, such as culverts, narrow bridges, archways, and buildings.
(c) Excessive gradients (Above 7 in 100)
(d) Curves less than 100 feet (34 metres) in radius
(e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d
1	Uphill Steep Grade	SB 968419	7 o/o for 500 m
2	Sharp Curve	SB 983367	28 meters radius
3	Steep downhill grade	SB 983367	8 o/o for 150 m, 5 o/o for 600 m.
4	Steep Uphill grade.	SB 994836	9 o/o for 500 m
5	Craters - Artillery fire.	TB 065346	0.3-0.5 meters deep by 1.5-2.0 meters in diameter for 500 meters

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Congratulations!
You have now completed all the practice exercises in this lesson. At this time review any sections you are unsure of.

When you're ready, ask for the lesson test.

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PRETEST/POSTTEST ANSWER KEY

The Road Reconnaissance Report should be completed as shown here. The Heading and SECTIONS I, II, and III must be prepared completely and without error to achieve a passing score.

ROAD RECONNAISSANCE REPORT

DATE: 11 July 78

TO: (Headquarters ordering reconnaissance) Co. 20th Engr. BN ATTN: S-2

FROM: (Name, grade and unit of officer or NCO making reconnaissance) Your Name and unit

SECTION I - GENERAL ROAD INFORMATION

1. MAPS	a. COUNTRY	b. SCALE: 1:5000	c. SHEET NUMBER OR MAPS: SS67-III AMS V733
			d. DATE/TIME GROUP (Of alignment): 1109 00 Jul 78

2. ROAD GRID REFERENCE: FROM EG 035848 TO EG 073951

3. ROAD MARKING (Civilian or Military number of road): Rt. 507 (Civilian) OR BLANK

4. LENGTH OF ROAD (Miles or kilometers, specify): 12.2 km

5. WIDTH OF ROADWAY (Feet or meters, specify): 5.0 - 8.0 m

6. WEATHER DURING RECONNAISSANCE (Include last rainfall, if known): Hot and Humid - approx. 87° Last rainfall: 5 July 78 - approx. /mod

7. RECONNAISSANCE: DATE 11 July; TIME 0900

SECTION II - DETAILED ROAD INFORMATION (When cartographic product more detailed information will be shown in an overlay or on the bilateg chart on the reverse side of this form. Standard symbols will be used.)

8. ALIGNMENT (Check one ONLY)
- (1) FLAT GRADIENTS AND EASY CURVES
- (2) STEEP GRADIENTS (Exceed of 7 in 100)
- (3) SHARP CURVES (Radius less than 100 ft (30m))
- X (4) STEEP GRADIENTS AND SHARP CURVES

9. DRAINAGE (Check one ONLY)
- (1) ADEQUATE DITCHES, CROWN/CAMBER WITH ADEQUATE CULVERTS IN GOOD CONDITION
- X (2) INADEQUATE DITCHES, CROWN/CAMBER OR CULVERTS, ITS CULVERTS OR DITCHES ARE BLOCKED OR OTHERWISE IN POOR CONDITION

10. FOUNDATION (Check one ONLY)
- X (1) STABILIZED COMPACT MATERIAL OF GOOD QUALITY
- (2) UNSTABLE, LOOSE OR EASILY DISPLACED MATERIAL

11. SURFACE DESCRIPTION (Complete items 12a and b)

a. THE SURFACE IS (Check one ONLY)
- (1) FREE OF POTHOLES, BUMPS, OR RUTS LIKELY TO REDUCE CONVOY SPEED
- X (2) BUMPY, RUTTED OR POTHOLED TO AN EXTENT LIKELY TO REDUCE CONVOY SPEED

b. TYPE OF SURFACE (Check one ONLY)
- X (1) CONCRETE SEE SECTION II
- (2) BITUMINOUS (Specify type mbox bmem)
- (3) GRAVEL
- (4) LIGHTLY METALLED
- (5) NATURAL OR STABILIZED SOIL, SAND CLAY, SHELL, CINDERS, DISINTEGRATED GRANITE, OR OTHER SELECTED MATERIAL
- (10) OTHER (Describe)
- (6) BRICK (Pave)
- (7) STONE (Pave)
- (8) CRUSHED ROCK OR CORAL

SECTION III - OBSTRUCTIONS (List in the columns below particulars of the following obstructions which affect the traffic capacity of a road. It bituminous or any better surface should be sectionized, insert "NOT KNOWN")
- (a) Overhead obstructions, less than 14 feet or 4.25 meters, such as tunnels, bridges, overhead mines and overhanging buildings.
- (b) Restrictions in road widths which limit the traffic capacity, such as culverts, narrow bridges, archways, and buildings.
- (c) Excessive gradients (Above 7 in 100)
- (d) Curves less than 100 feet (30 meters) in radius.
- (e) Fords

SERIAL NUMBER a	PARTICULARS b	GRID REFERENCE c	REMARKS d
1	Uphill slope	EG 034795	9% for 250 meters
2	Sharp curve	EG 047692	Radius 17 meters
3	Downhill slope	EG 053174	8% for 225 meters
4	Uphill slope	EG 068698	11% for 400 meters

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